Eric Klem Tradeline Fabricating, Inc. 22422 Stateline Road Lawrenceburg, IN 47025

Re: Registered Construction and Operation Status,

R 029-12937-00028

Dear Mr. Klem:

The application from Tradeline Fabricating, Inc., received on November 5, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following operation, to be located at 22422 Stateline Road, Lawrenceburg, Indiana, is classified as registered:

- (a) One (1) paint booth to paint a variety of metal parts, components, fixtures and assemblies, equipped with an air atomization spray gun and dry filters for overspray control, exhausting to stack PB-1, capacity: Ten (10) units per hour.
- (b) Natural gas fired ceiling mounted space heaters, rated at 0.1 million British thermal units per hour, total.
- (c) One (1) MIG welding station with a capacity of ten (10) units per hour.
- (d) One (1) miscellaneous metal working operation, consisting of drilling, cutting, shaping, bending and shearing with a capacity of ten (10) units per hour.

The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the One (1) paint booth, the one (1) MIG welding station and the miscellaneous metal working operations shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$  where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The dry filters shall be in operation at all times the paint booth is in operation, in order to comply with this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3)). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief Permits Branch Office of Air Quality

#### CJF/MES

cc: File - Dearborn County

Air Compliance - Warren Greiling Permit Tracking - Janet Mobley Air Programs Section- Michele Boner

## Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	Tradeline Fabricating, Inc.
Address:	22422 Stateline Road
City:	Lawrenceburg, Indiana 47025
Authorized individual:	
Phone #:	
Registration #:	029-12937-00028

I hereby certify that Tradeline Fabricating, Inc. is still in operation and is in compliance with the requirements of Registration **R 029-12937-00028**.

Name (typed):	
Title:	
Signature:	
Date:	

## Indiana Department of Environmental Management Office of Air Quality

#### Technical Support Document (TSD) for a Registration

#### **Source Background and Description**

Source Name: Tradeline Fabricating, Inc.

Source Location: 22422 Stateline Road, Lawrenceburg, Indiana 47025

County: Dearborn SIC Code: 3460

Operation Permit No.: R 029-12937-00028 Permit Reviewer: Craig J. Friederich

The Office of Air Quality (OAQ) has reviewed an application from Tradeline Fabricating, Inc. relating to the operation of a fabricated metal parts painting source.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

One (1) paint booth to paint a variety of metal parts, components, fixtures and assemblies, equipped with an air atomization spray gun and dry filters for overspray control, exhausting to stack PB-1, capacity: ten (10) units per hour.

#### **Unpermitted Emission Units and Pollution Control Equipment**

- (a) Natural gas-fired ceiling mounted space heaters, rated at 0.1 million British thermal units per hour, total.
- (b) One (1) MIG welding station with a capacity of ten (10) units per hour.
- (c) One (1) miscellaneous metal working operation, consisting of drilling, cutting, shaping, bending and shearing with a capacity of ten (10) units per hour.

Note: All unpermitted facilities fall under exemption status.

#### **New Emission Units and Pollution Control Equipment**

There are no new facilities/units requiring approval during this review.

#### **Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

CP 029-9218-00028, issued on March 23, 1998

All conditions from previous approvals were incorporated into this permit.

#### **Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)	
PB-1	Paint Booth	6.0	3.0	9,500	Ambient	

#### **Enforcement Issue**

All unpermitted equipment fell under exemption status. There are no enforcement actions pending.

#### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 5, 2000, with additional information received on January 8, 2001, January 23, 2001, February 5, 2001 and February 12, 2001.

#### **Emission Calculations**

See pages 1through 5 of 5 of Appendix A of this document for detailed emissions calculations.

Note: The PM emissions from the miscellaneous metal working operations are negligible.

#### **Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	8.87
PM <sub>10</sub>	8.87
SO <sub>2</sub>	0.0003
VOC	9.68
CO	0.037
NO <sub>x</sub>	0.044

HAPs	Potential To Emit (tons/year)
Benzene	9.20E-07
Dichlorobenzene	5.26E-07
Formaldehyde	3.29E-05
Toluene	1.49E-06
Hexane	7.88E-04
Lead	2.19E-07
Cadmium	4.82E-07
Nickel	4.09E-05
Chromium	4.06E-05
Manganese	1.50E-04
Xylene	4.90
MIBK	2.00
Ethyl Benzene	0.048
TOTAL	6.95

- (a) The potential to emit (as defined in 326 IAC 2-5.1-2) of any single HAP is greater than one (1) ton per year, and the potential to emit combined HAPs is greater than two and a half (2.5) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2.
- (b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

#### **Actual Emissions**

No previous emission data has been received from the source.

#### **County Attainment Status**

The source is located in Dearborn County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	unclassifiable
NO <sub>2</sub>	attainment
Ozone	attainment

Pollutant	Status
СО	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO $_{\rm X}$ ) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Dearborn County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO $_{\rm X}$  emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR Part 52.21.
- (b) Dearborn County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR Part 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

#### **Source Status**

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.810
PM <sub>10</sub>	0.810
SO <sub>2</sub>	0.0003
VOC	9.68
CO	0.037
$NO_X$	0.044

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of two hundred-fifty (250) tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on calculations provided in Appendix A.

#### **Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit R 029-12937-00028, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) any combination of HAPS is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

#### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

#### State Rule Applicability - Entire Source

326 IAC 2-4.1-1 (New Source Toxics Control)

The potential to emit of each individual HAP is less than ten (10) tons per year and the potential to emit of total HAPs is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-4.1-1, New Source Toxics Control, are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Dearborn County and the potential to emit all criteria pollutants is less than one-hundred (100) tons per year, therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1 (Nonattainment area particulate limitations: Dearborn County)

The provisions of 326 IAC 6-1 (Nonattainment area particulate limitations: Dearborn county) are not applicable because the potential to emit of Particulate Matter is less than one hundred (100) tons per year and actual Particulate Matter emissions are less than ten (10) tons per year.

#### State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the one (1) paint booth, the one (1) MIG welding station and the miscellaneous metal working operations shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$
 where  $E =$  rate of emission in pounds per hour and  $P =$  process weight rate in tons per hour

The dry filters shall be in operation at all times the paint booth is in operation, in order to comply with this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

#### Conclusion

The operation of this fabricated metal parts painting source shall be subject to the conditions of the attached proposed Registration 029-12937-00028.

# Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100 Space Heaters

Company Name: Tradeline Fabricating, Inc.

Address City IN Zip: 22422 Stateline Road, Lawrenceburg, Indiana 47025

Registration#: R 029-12937

Plt ID: 029-00028

Reviewer: Craig J. Friederich Date: November 5, 2000

Heat Input Capacity Potential Throughput

MMBtu/hr MMCF/yr

0.100 0.88

#### Pollutant

			'			
	PM*	PM10*	SO2	NOx	VOC	СО
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.001	0.003	0.0003	0.044	0.002	0.037

<sup>\*</sup>PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 3 for HAPs emissions calculations.

<sup>\*\*</sup>Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

#### Page 2 of 5 TSD App A

## Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100

Space Heaters

**HAPs Emissions** 

**Company Name: Tradeline Fabricating, Inc.** 

Address City IN Zip: 22422 Stateline Road, Lawrenceburg, Indiana 47025

Registration#: R 029-12937 Plt ID: 029-00028

Reviewer: Craig J. Friederich
Date: November 5, 2000

#### HAPs - Organics

Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.198E-07	5.256E-07	3.285E-05	7.884E-04	1.489E-06

#### HAPs - Metals

Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel	Total
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	HAPs
Potential Emission in tons/yr	2.190E-07	4.818E-07	6.132E-07	1.664E-07	9.198E-07	0.001

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

#### Page 3 of 5 TSD AppA

### Appendix A: Emission Calculations HAP Emission Calculations

Company Name: Tradeline Fabricating, Inc.

Address City IN Zip: 22422 Stateline Road, Lawrenceburg, Indiana 47025

Registration#: R 029-12937 Plt ID: 029-00028

Reviewer: Craig J. Friederich
Date: November 5, 2000

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MIBK	Weight % Ethyl	Xylene Emissions (tons/yr)	MIBK Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)
						Benzene			
Gray Primer									
Primer	12.40	0.019	10.000	0.00%	16.00%	0.00%	0.00	1.63	0.00
Thinner	7.25	0.001	10.000	85.00%	0.00%	15.00%	0.27	0.00	0.05
Customer Supplied Coating (Typical)	13.94	0.020	10.000	2.00%	3.00%	0.00%	0.24	0.37	0.00
Clean Up Solvent (Xylene)	7.25	0.0138	10.000	100.00%	0.00%	0.00%	4.38	0.00	0.00

METHODOLOGY Individual Total 4.90 2.00 0.048

Overall Total 6.94

HAPS emission rate (tons/yr) = Density (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

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#### Appendix A: Emissions Calculations **VOC and Particulate** From Surface Coating Operations

Company Name: Tradeline Fabricating, Inc.

Address City IN Zip: 22422 Stateline Road, Lawrenceburg, Indiana 47025

Registration#: R 029-12937 PIt ID: 029-00028 Reviewer: Craig J. Friederich Date: November 5, 2000

Material			Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)		Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
One (1) Paint Booth																
Gray Primer	12.10	29.20%	0.0%	29.2%	0.0%	49.00%	0.02000	10.000	3.5	3.5	0.71	16.96	3.10	3.75	7.21	50%
ustomer Supplied Coating (Typica	13.94	18.00%	0.0%	18.0%	0.0%	64.00%	0.02000	10.000	2.51	2.51	0.50	12.04	2.20	5.01	3.92	50%
Clean Up Solvent (Xylene)	7.25	100.00%	0.0%	100.0%	0.0%	0.00%	0.01380	10.000	7.25	7.25	1.00	24.01	4.38	0.00	n/a	100%

Control Efficiency 92.00% **State Potential Emissions** Add worst case coating to all solvents Uncontrolled 2.21 53.02 9.68 8.76 Controlled 2.21 53.02 9.68 0.701

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (libs/gal) \* Weight % Organics)

Pounds of VOC per Gallon Coating = (Density (libs/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1 - Weight % Volatiles) \* (1-Transfer efficiency) \* (8760 hrs/yr) \* (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Welding and Thermal Cutting

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Company Name: Tradeline Fabricating, Inc.

Address City IN Zip: 22422 Stateline Road, Lawrenceburg, Indiana 47025

Registration#: R 029-12937 Plant ID: 029-00028

Reviewer: Craig J. Friederich
Date: November 5, 2000

PROCESS	Number of Stations	Max. electrode consumption per station	EMISSION FA	CTORS * (II	o pollutant /	lb electrode)		TOTAL HAPS (lb/hr)			
WELDING	Ctations	(lbs/hr)	PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Metal Inert Gas (MIG)(ER5154)	1	1	0.0241	0.00003	0.00001	0.00001	0.024	0.000034	0.000	0.00001	0.00005
EMISSION TOTALS							PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr							0.02	0.00	0.00	0.00	0.00
Potential Emissions lbs/day							0.58	0.00	0.00	0.00	0.00
Fotential Emissions ibs/day							0.56	0.00	0.00	0.00	0.00
Potential Emissions tons/year							0.11	0.00015	0.00004	0.00004	0.00024

#### **METHODOLOGY**

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.

See AP-42, Chapter 12.19 for additional emission factors for welding.